Architecture Summary

10/29/2008 1:16:18PM



Architecture Name Architecture Description

Status

NE Illinois Regional ITS Architecture (Region)

Description: The Northeastern Illinois Regional ITS Architecture is a roadmap for transportation systems integration in

the NE Illinois region over the next 15 years.

Timeframe:

Geographic Scope: Seven-county area (Cook, DuPage, Kane, Kendall, Lake, McHenry, Will) plus the Aux Sable

Township in Grundy County

Service Scope:

Developer:

Maintainer: CMAP
Version: 2.0
Revision Date:

ID 2 Chicago Traffic Management Center (TMC) (Project)

Planned

Description: The Chicago TMC is one of the largest and most significant ITS projects being undertaken by CDOT

(jointly with City of Chicago Office of Emergency Management and Communications).

CDOT currently has an operational "mini-TMC" with the Traffic Control room at 30 N. LaSalle. It will be

expanded in 2005 and will serve as the TMC until the permanent location is established.

Timeframe: Phase II - 2005

Geographic Scope:

Service Scope: Covers traffic management, traveler information, emergency/incident management.

Developer: MG

Maintainer: Version:

Revision Date: 24-Apr-2007

ID 4 Cicero Ave Smart Corridor ATMS (Project)

Planned

Description: This project has been underway for some time with currently deployed systems including 19 signals, 7

CCTVs, 2 DMSs and system detectors. It also includes the development of a Midway Airport Satellite Traffic Management Center. Future enhancements relate to traffic adaptive control on the signals and

possibly other roadside device enhancements.

Timeframe: Phase II - Mid

Geographic Scope: Corridor signals from I-55 to Marquette to be interconnected with a fiber

backbone. Includes 7 CCTVs, 2 DMSs and system detectors. Ph I uses traffic responsive control.

Links to Pulaski & Central Smart Corridors and Cicero ATIS.

Service Scope:

Developer: MG

Maintainer: Version:

Revision Date: 24-Apr-2007

ID 5 Cicero Ave Smart Corridor ATIS (Project)

Planned

Description: This project provides upgrades to several traveler information systems along the smart corridor.

Specifically the project will develop HAR upgrades to provide information on closures of highway rail

intersections, Enhanced Traveler Information Kiosks, and Dynamic Message Signs.

Timeframe: Mid Geographic Scope:

Service Scope: HAR upgrade/RR notification, enhanced traveler information kiosks, Dynamic Message Signs, a

combination of 4 projects.

Architecture Name Architecture Description

Status

Developer:

MG

Maintainer: Version:

Revision Date: 24-Apr-2007

ID 6 CDOT Smart Corridors: Pulaski Road (Project)

Planned

Description: This project involves multiple "smart corridors" which utilize arterial traffic management with

fiber-interconnected signals, CCTVs vehicle detector stations and/or VMS. These smart corridors are selected based upon a priority model developed by CDOT. The exact capabilities implemented may vary by location, which will mean that some subset of the elements and interfaces will actually be implemented.

Timeframe: Short

Geographic Scope: Pulaski Road, Western Ave., Archer/55th, Central Ave., Ashland, Michigan/Indiana, 87th St., 95th

St., Sheridan/Broadway, Congress Parkway, Cicero (I-290 to Peterson)

Service Scope: Arterial traffic management utilizing fiberinterconnected signals, CCTVs vehicle detector stations and/or

VMS. Future consideration for RWIS and

environmental sensors.

Developer: MG

Maintainer: Version:

Revision Date: 24-Apr-2007

ID 9 CDOT Red-light Camera Enforcement Program (Project)

Existing

Existing

Description: Approximately 5 percent (100-200) of traffic signals will be monitored by redlight running cameras with

automated process to ticket violators.

Timeframe: Short Geographic Scope: Service Scope: Developer: MG

Maintainer: Version:

Revision Date: 2-May-2007

ID 11 City of Chicago Interconnects (Project)

Description: This project provides coordination of signals on city of Chicago arterials. The project may include signal

timing across municipal and county boundaries.

Timeframe: Short

Geographic Scope: May expand regional communications network.

Service Scope:
Developer: MG

Maintainer: Version:

Revision Date: 1-May-2007

ID 13 Chicago Skyway Travel Monitoring and Integration with IDOT Gateway

Planned

(Project)

Description: This project provides network surveillance on the Chicago Skyway by placing RTMS devices at 1/2 mile

intervals along the Skyway. The information would be used to generate real-time travel time data that would be sent to the Chicago TMC and integrated in the IDOT/GCM regional expressway/tollway travel time maps. While this project is currently listed in the CDOT section, the Skyway has been leased by

Chicago to a private consortium who began operating it in 2005.

Timeframe: Mid Geographic Scope: Service Scope:

Architecture Name Architecture Description

Status

Developer:

MG

Maintainer: Version:

Revision Date: 1-May-2007

ID 15 Chicago Truck Route Advisory System (Project)

Planned

Description:

This project will provide an interactive web page in which truckers would enter an origin and destination plus characteristics of their truck (height, weight, length), and the web site would provide them with information regarding viaduct clearances, construction, truck route restrictions, weight limits and special permits where needed (e.g., Lake Shore Dr.). Eventually, more dynamic aspects such as street closures and special events would be added.

Timeframe: Mid Geographic Scope: Service Scope: Developer: MG

Maintainer: Version:

Revision Date: 24-Apr-2007

ID 18 Parking Information Projects (Project)

Planned

Description: This project will provide real-time parking and traveler information for Navy-pier and Grant Park/

Millennium Park.

Timeframe: Mid

Geographic Scope: Around Navy Pier and Grant Park/Millenium Park

Service Scope:
Developer: MG
Maintainer:

Version:

Revision Date: 24-Apr-2007

ID 19 Cook County Traffic Management Center (Project)

Planned

Description: This project would develop a Cook County TMC capability. The center may be located in Schaumburg,

initially covering northern Cook County. Alternatively the center capability could be collocated with

CDOT or IDOT TMC rather than a stand alone facility.

Timeframe: Long
Geographic Scope:
Service Scope:
Developer: MG
Maintainer:

Maintainer: Version:

Revision Date: 24-Apr-2007

ID 25 DuPage Emergency Management and Signal Preemption (Project)

Planned

Description: This project will plan, implement, operate, maintain and monitor coordinated signal preemption system

across county for state, county and municipal systems. It may consider an interface with Glendale Heights

EOC.

Timeframe: Mid Geographic Scope: Service Scope:

Architecture Name Architecture Description

Status

Developer:

r: MG

Maintainer: Version:

Revision Date: 25-Apr-2007

ID 26 DuPage County Paratransit Coordination (Project)

Planned

Description: This project will look at implementing centralized coordination of local paratransit services as well as

provide coordination with public safety and other transit organizations.

Timeframe: Shor Geographic Scope: Service Scope: Developer: MG

Maintainer: Version:

Revision Date: 1-May-2007

ID 28 Kane County Traffic Management Center (Project)

Planned

Planned

Description: This project will implement basic traffic management capabilities for Kane County.

Timeframe: Short-Mid

Geographic Scope: Service Scope:

Developer: MG

Maintainer: Version:

Revision Date: 25-Apr-2007

ID 31 Lake County PASSAGE (Project)

Description: This project will continue the system implementation of the Lake County TMC. The initial phase will be

140+ signals. Two more phases are planned with automated diversion routes, a link to County Sheriff

CAD, a link to the Gateway, and links to municipal TMCs, municipal public safety and County EOC.

Timeframe: Short-Mid

Geographic Scope: Service Scope: Developer: MG Maintainer:

Version:

Revision Date: 25-Apr-2007

ID 37 Will County Traffic Management Center (Project)

Planned

Description: This project involves the development of traffic management capabilities for the Will County. One

consideration for this TMC is the collocation traffic management and emergency operations centers.

Timeframe: Mid Geographic Scope: Service Scope: Developer: MG Maintainer:

Maintainer Version:

Revision Date: 25-Apr-2007

ID 41 Integration of Centers (Project)

Planned

Description: This project will connect regional police districts (Il State Police and Chicago) to Gateway Traveler

Information System in order to share incident and other information.

Architecture Name Architecture Description

Status

Timeframe: Mid Geographic Scope: Service Scope: Developer: MG Maintainer:

Mainiain Version:

Revision Date: 25-Apr-2007

ID 42 Interagency Operations and Signal Coordination (Project)

Planned

Description: This project will consider the coordination of signals on Strategic Regional Arterials throughout NE

Illinois. This includes coordination from IDOT District 1 Bureau of Traffic Signal Unit to other traffic

management elements in the architecture.

Timeframe: Mid-Long

Geographic Scope: Includes signal timing across municipal and county boundaries. Also includes coordination among

counties and municipalities

without IDOT.

Service Scope: May expand regional communications network, and may

involve IDOT coordination with local TMCs

Developer: MG

Maintainer: Version:

Revision Date: 1-May-2007

ID 46 Surveillance of Critical Bridge Infrastructure (Project)

Planned

Description: Installation of lighting, fencing and CCTV on 16 bridges in northeast Illinois.

Timeframe: Short Geographic Scope: Service Scope: Developer: MG

Maintainer: Version:

Revision Date: 2-May-2007

ID 48 CCTV Surveillance Sharing (Project)

Planned

Description: This project considers sharing of video information among traffic management elements in the region.

Several ways of implementing this capability are being considered. These include use of the internet with password protected access to images and control of the cameras. The agencies involved could include both

public and private agencies through some sort of partnership.

Timeframe: Mid Geographic Scope: Service Scope:

Developer: MG

Maintainer: Version:

Revision Date: 25-Apr-2007

ID 49 IDOT CCTV Systems, Expressway (Project)

Planned

Description: This project involves augmenting the CCTV systems IDOT has deployed along the expressways.

Timeframe: Long Geographic Scope: Service Scope:

Architecture Name Architecture Description

Status

Developer:

MG

Maintainer: Version:

Revision Date: 25-Apr-2007

ID 50 Integrated Expressway/Arterial Corridors (Project)

Planned

Description:

This project considers coordination between expressway and arterial systems. Plans for a Pilot Project would involve a tie-in of Eisenhower Expressway to Chicago DOT signals by having ramp queue detectors, both for on-ramps and off-ramps. Ramp terminal signal control would then be modified to either hold entry to I-290 (on-ramp congestion) or clear the off-ramp (spillback onto I-290). The implementation might link CDOT signals with IDOT Traffic Systems Center, or whether have local links to ramp meters

only.

Timeframe: Mid

Geographic Scope: Pilot project on I-290/Eisenhower Expressway:

Service Scope: Expressway management integrated with ramp terminal signal management, and possibly (often parallel)

arterial incident management.

Developer: MG

Maintainer: Version:

Revision Date: 25-Apr-2007

ID 53 Regionwide Emergency Traffic Operations Systems (ETOS) Upgrade

Planned

(Project)

Description: The project will be the follow-on to a pilot project that involved 6 ETP equipped vehicles (5 maintenance

vehicles & 1 command vehicle) which has been recently completed. Purpose of the initial project was to get incident info to the Gateway. The follow-on project will likely involve both AVL and simplified MDT (keypad) to input basic incident info at the vehicle and send it to the Com Center and ETP dispatch on the

private radio network.

Timeframe: Short Geographic Scope:

Service Scope: Advanced Traveler Information System

Developer: MG

Maintainer: Version:

Revision Date: 25-Apr-2007

ID 56 Statewide 511 Service (Project)

Planned

Description: This project provides implementation of a statewide integrated traveler information system using a

common three digit number 511. The project would include RTA and Gateway links.

Timeframe: Short Geographic Scope:

Service Scope: Advanced Traveler Information System

Developer: MG

Maintainer: Version:

Revision Date: 1-May-2007

ID 59 Accident Database and Reporting System (Project)

Planned

Description: This project involves development of an accident or crash database for use by law enforcement and other

incident response agencies to aid in incident response.

Timeframe: Mid Geographic Scope:

Service Scope: Emergency Mngmnt

Architecture Name Architecture Description

Status

Developer:

oper: MG

Maintainer: Version:

Revision Date: 1-May-2007

ID 60 ITS Applications for WorkZones (Project)

Planned

Description: This project is an IDOT initiative for deploying various technologies like CCTVs, DMS etc. in workzone

areas to improve traveler conditions, worker safety etc.

Timeframe: Mid Geographic Scope: Service Scope: Developer: MG

Maintainer: Version:

Revision Date: 4-May-2007

ID 62 Mobile Technologies to Measure Travel Times Using Probe Vehicles

Planned

(Project)

Description: Combined initiative of IDOT, City of Chicago, ISTHA and RTA. Would involve using cell phone GPS

technologies to measure real-time travel conditions on roadway network

 ${\it Time frame:}$

Geographic Scope: Service Scope: Developer: Maintainer: Version:

Revision Date: 4-May-2007

ID 64 Railroad Grade Crossing Delay - Traveler Information System (Project)

Planned

Description: This project would develop a Traveler Information System to provide travelers with information regarding

delays due to trains.

Timeframe: Short Geographic Scope:

Service Scope: Advanced Traveler Information System

Developer: MG

Maintainer: Version:

Revision Date: 1-May-2007

ID 66 Traveler Information Archive (Project)

Planned

Description: This project will develop an electronic archive for the travel information collected by GCM corridor.

Timeframe: Mid Geographic Scope:

Service Scope: Data Management

Developer: MG

Maintainer: Version:

Revision Date: 25-Apr-2007

ID 69 ISTHA TIMS Enhancement (Project)

Planned

Description: This project will expand the software capabilities of the TIMS, including enhanced connectivity to the

Gateway and other centers in the region.

Architecture Name Architecture Description

Status

Timeframe: Short Geographic Scope:

Service Scope: Maintenance and Construction Mngmnt

Developer: MG

Maintainer: Version:

Revision Date: 25-Apr-2007

ID 72 ISTHA Systemwide Open Road Tolling (ORT) (Project)

Planned

Description: This project covers upgrades to the Tollway Toll Plazas for capabilities such as mixed use truck/car lane

enhancements at all toll booths and use of "open-road" tolling (no stopping required).

Timeframe: Short Geographic Scope:

Service Scope: Traffic Mngmnt

Developer: MG

Maintainer: Version:

Revision Date: 25-Apr-2007

ID 75 Transit Hub: APTS (Project)

Planned

Description: This project involves design and development of the Illinois Transit Hub to better manage transit

operations. This project heading is used to cover three separate efforts:

-Deployment of the Illinois Transit Hub itself

-Transfer Connection Protection-- This effort involves real-time monitoring of CTA, PACE, and Metra operations to protect against missed transfers.

-Regionwide Automatic Fare Collection System—This effort involves planning, design, and deployment

of a regional transit fare collection system.

The latter two efforts represent uses of the Transit Hub to share information between transit centers in the

region.

Timeframe:

Geographic Scope: Service Scope: Developer: MG

Maintainer: Version:

Revision Date: 26-Apr-2007

ID 77 Illinois Transit Hub (Project)

Existing

Description: This project entry covers the transit traveler information aspects of the Transit Hub. The project covers

dissemination of transit information to Gateway and service boards. Includes development of a Illinois

Transit Hub website, and an interface to the RTA Travel Information Center.

Timeframe:

Geographic Scope:

Service Scope: Data Management and Transit Mngmnt

Developer: MG

Maintainer: Version:

Revision Date: 26-Apr-2007

ID 80 Automatic Train Supervision (ATS) System (Project)

Planned

Architecture Name Architecture Description

Status

Description: This project provides an updated CTA train tracking system made up of a) full communication of signal

indications to CTA control center, b) Centralized Traffic Control (CTC) and c) new software in CTA

control enter.

Timeframe: Short-Mid

Geographic Scope:

Service Scope: Transit Mngmnt

Developer: MG

Maintainer: Version:

Revision Date: 25-Apr-2007

ID 81 Train Passenger Information System (Project)

Planned

Description: This project provides LED display of train arrivals at all stations on a countdown clock.

Timeframe: Long Geographic Scope:

Service Scope: Transit Mngmnt

Developer: MG

Maintainer: Version:

Revision Date: 25-Apr-2007

ID 94 Pace Intelligent Bus System (Project)

Planned

Description: This project is the continuation of an on-going effort to deploy an integrated bus management system

incorporating automatic vehicle location and fleet management technologies.

Timeframe: Short-Mid

Geographic Scope:

Service Scope: Transit Mngmnt

Developer: MG

Maintainer: Version:

Revision Date: 1-May-2007

ID 97 Pace Transit Operations Decision Support System (Project)

Planned

Description: This project will create a system that will quickly develop new bus routes when an incident impacts an

existing route.

Timeframe: Mid Geographic Scope:

Service Scope: Transit Management

Developer: MG

Maintainer: Version:

Revision Date: 25-Apr-2007

ID100 Regionwide Transit Signal Priority Deployment (Project)

Planned

Description: This project will provide a system that will give priority to Pace buses at traffic signals in the region.

Timeframe: Long Geographic Scope:

Service Scope: Transit Management

Developer: MG

Maintainer: Version:

Revision Date: 1-May-2007

Architecture Name

Architecture Description

Status

Existing

Illinois Gateway (Project)

Description: GCM Corridor Architecture - Illinois Gateway and NE Illinois

Timeframe: Geographic Scope:

Service Scope: Traffic Management, Traveler Information

Developer:
Maintainer:
Version:

Revision Date: 6-Sep-2007

Northeastern Illinois Regional Data Archive and Management System (Project)

Potential

Description: The concept is to create one regional system/database that archives all traffic performance data for the

entire Northeastern Region. While individual systems would be responsible for ultimately archiving greater level of detail on their systems, connections, and standards will be adopted so that the regional

archive could access the more detailed data for smaller individual efforts.

Timeframe: Mid

Geographic Scope: Northeastern Illinois Service Scope: Archive Data Management

Developer: LS

Maintainer: Version:

Revision Date: 6-Sep-2007

Transit Management (Project)

Planned

Description: Timeframe: Geographic Scope: Service Scope: Developer:

Maintainer: Version:

Revision Date: 4-May-2007

Status Value Legend	
Name	Description
Existing	Currently in place
Planned	Currently funded/undergoing planning or design
Potential	Currently does not have funding/is not planned but a need for it has
	been identified
Not Planned	